

Patent Application  
Attorney Docket No.: 27124-2

AMENDMENTS TO THE CLAIMS

1. (Canceled)

2. (Canceled)

1 3. (Currently amended) An The apparatus of  
2 claim 2 for monitoring the movement of a patient's  
3 spine comprising:  
4 an elongated member adapted to be disposed  
5 longitudinally adjacent to the patient's spine and  
6 further adapted to be flexible in the midsagittal plane  
7 and substantially inflexible in the frontal plane;  
8 a first sensor mounted to the elongated  
9 member and disposed to monitor flexion and extension  
10 motion of the patient's spine in the midsagittal plane,  
11 wherein the first sensor includes at least one strain  
12 gage; and  
13 a second sensor mounted to the elongated  
14 member and disposed to monitor lateral motion of the  
15 patient's spine in the frontal plane, wherein the  
16 second sensor is an optical sensor.

4. (Canceled)

1 5. (Currently amended) An The apparatus of  
2 claim 4 for monitoring the movement of a patient's  
3 spine comprising:  
4 an elongated member adapted to be disposed  
5 longitudinally adjacent to the patient's spine and

Amendment and Response

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6        further adapted to be flexible in the midsagittal plane  
7        and substantially inflexible in the frontal plane;  
8                a first sensor mounted to the elongated  
9        member and disposed to monitor flexion and extension  
10       motion of the patient's spine in the midsagittal plane;  
11       and  
12                a second sensor mounted to the elongated  
13       member and disposed to monitor lateral motion of the  
14       patient's spine in the frontal plane, wherein the  
15       second sensor is an optical sensor, and further wherein  
16       the second sensor is an optical mouse sensor.

6.       (Canceled)

7.       (Canceled)

1                8.       (Currently amended) An The apparatus of  
2       claim 1 for monitoring the movement of a patient's  
3       spine comprising:  
4                an elongated member adapted to be disposed  
5       longitudinally adjacent to the patient's spine and  
6       further adapted to be flexible in the midsagittal plane  
7       and substantially inflexible in the frontal plane,  
8       wherein the elongated member has a first end and a  
9       second end opposite the first end;  
10               a first sensor mounted to the elongated  
11       member and disposed to monitor flexion and extension  
12       motion of the patient's spine in the midsagittal plane,  
13       and further wherein the first sensor is mounted to the  
14       elongated member near the first end; and

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15                    a second sensor mounted to the elongated  
16                    member and disposed to monitor lateral motion of the  
17                    patient's spine in the frontal plane, wherein and the  
18                    second sensor is mounted to the elongated member near  
19                    the second end.

9.        (Canceled)

1                    10.    (Currently amended) An The apparatus of  
2                    claim 9 for monitoring the movement of a patient's  
3                    spine comprising:

4                    an elongated member adapted to be disposed  
5                    longitudinally adjacent to the patient's spine and  
6                    further adapted to be flexible in the midsagittal plane  
7                    and substantially inflexible in the frontal plane;

8                    a first sensor mounted to the elongated  
9                    member and disposed to monitor flexion and extension  
10                   motion of the patient's spine in the midsagittal plane,  
11                   wherein the first sensor is adapted to be disposed  
12                   along the patient's spine at approximately the location  
13                   of the 1st sacral vertebrae; and

14                   a second sensor mounted to the elongated  
15                   member and disposed to monitor lateral motion of the  
16                   patient's spine in the frontal plane, wherein the  
17                   second sensor is adapted to be disposed along the  
18                   patient's spine at approximately the location of the  
19                   12th thoracic vertebrae.

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11. (Currently amended) ~~An~~ The apparatus of  
claim 1 for monitoring the movement of a patient's  
spine comprising:

an elongated member adapted to be disposed  
longitudinally adjacent to the patient's spine and  
further adapted to be flexible in the midsagittal plane  
and substantially inflexible in the frontal plane;

a first sensor mounted to the elongated  
member and disposed to monitor flexion and extension  
motion of the patient's spine in the midsagittal plane;

a second sensor mounted to the elongated  
member and disposed to monitor lateral motion of the  
patient's spine in the frontal plane; and

~~further comprising~~ a corset wearable by the  
patient and having a pocket, wherein the elongated  
member is substantially disposed inside of the pocket.

12. (Previously presented) The apparatus of  
claim 11 wherein the second sensor is disposed inside of the  
pocket.

13. (Previously presented) The apparatus of  
claim 12 wherein the corset includes a track disposed inside  
of the pocket, and further wherein the second sensor is an  
optical sensor disposed to detect movement of the track as  
the patient's spine moves laterally in the frontal plane.

14. (Canceled)

15. (Canceled)

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16. (Canceled)

1 17. (Previously presented) An apparatus for  
2 monitoring the movement of a patient's spine  
3 comprising:

4 an elongated member adapted to be disposed  
5 longitudinally along the patient's spine, wherein the  
6 elongated member has a first end and a second end  
7 opposite the first end;

8 a first sensor mounted to the elongated  
9 member and disposed to monitor flexion and extension  
10 motion of the patient's lumbar spine in the midsagittal  
11 plane, wherein the first sensor is mounted to the  
12 elongated member near the first end; and

13 a second sensor mounted to the elongated  
14 member and disposed to monitor lateral motion of the  
15 patient's lumbar spine in the frontal plane, wherein  
16 the second sensor is an optical sensor, and further  
17 wherein the second sensor is mounted to the elongated  
18 member near the second end.

1 18. (Previously presented) The apparatus of  
2 claim 17 wherein the second sensor is an optical mouse  
3 sensor.

1 19. (Previously presented) The apparatus of  
2 claim 17 further comprising a computer in electrical  
3 communication with the second sensor, wherein the computer  
4 includes a display having a cursor, wherein the second

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5 sensor controls movement of the cursor, and further wherein  
6 the computer interprets the position of the cursor to  
7 graphically show lateral movement of the patient's spine on  
8 the display.

1 20. (Previously presented) The apparatus of  
2 claim 17 further comprising a corset wearable by the  
3 patient, wherein the corset includes a pocket and a track  
4 disposed inside of the pocket, and further wherein the  
5 second sensor is disposed inside of the pocket to detect  
6 movement of the track as the patient's spine moves laterally  
7 in the frontal plane.